

### **REMARKS**

Claims 144-155, 157-190 and 192-215 are pending. Claims 156 and 191 are canceled. Claims 213-214 are amended to delete recitations to canceled claims 156 and 191.

#### ***Substance of Interview***

Applicants appreciate the Examiner's courtesy in allowing Applicants and Applicants' Representatives to conduct a Personal Interview at the USPTO on July 25, 2006. During this Interview, Applicants submitted arguments traversing the rejection of claims 166 and 201 and claims depending therefrom under 35 USC §103(a). Applicants argued that inserting an open reading frame from a target viral genome within a gene start and gene end sequence of a background viral genome is not an obvious modification of US Patent No. 5,869,036 to Belshe *et al.* ("Belshe"), as the Examiner alleged. Applicants argued that Belshe does not disclose, teach or suggest the transcription signals of viral genomes. Moreover, merely swapping one ORF for another as taught, allegedly, by Belshe will rarely result in virus recovery because the inserted polynucleotide must conform to the "Rule of Six." That is, the number of nucleotides in the inserted polynucleotide must be a multiple of six for viral recovery to occur. In response to the arguments, the Examiner stated that she would reconsider the rejection. In a follow-up teleconference on August 7, 2006, the Examiner appeared to agree that Applicants' arguments are sufficient to overcome the rejection.

Additionally, Applicants appreciate the Examiner's courtesy in allowing Applicants' Representatives to conduct a Teleconference with the Examiner on June 28, 2006. During the teleconference, Applicants' representatives submitted arguments traversing the rejection of claim 146, and claims depending therefrom, under 35 USC § 112, second paragraph.

Specifically, the Examiner alleged that the phrase "said polynucleotides comprising the complement of nucleotide sequences of SEQ ID NOS: 68, 71 and 73", as recited in claim 146 is indefinite because it is unclear whether or not the phrase refers to the complements of all three

SEQ ID NOS. 69, 71 and 73 or the complement sequence of fragments of SEQ ID NOS. 69, 71 and 73. Applicants' representatives asserted that a skilled artisan understands that the claim refers to the complements of all three sequences. The Examiner stated that the record must include this explanation to overcome the rejection. Additionally, the Examiner stated that Applicants were to disregard the comment regarding "fragments" in the Office Action on page 2, as this comment was made in error.

Additionally, Applicants' representatives stated that no reason is given in the Office Action for the 35 USC § 112, second paragraph, rejection of claims 148, 160, 166, 179, 181, 183, 195, 201 and claims dependent therefrom. In response, the Examiner stated that these claims are rejected under 35 USC § 112, second paragraph, in error. Accordingly, this rejection will be withdrawn.

#### **Claim Rejections under 35 USC § 112**

The Examiner has rejected claims 146-155, 157-190 and 192-215 under 35 USC § 112, second paragraph, as being indefinite.

Specifically, the Examiner stated in the Office Action of April 18, 2006, that the phrase "said polynucleotides comprising the complement of nucleotide sequences of SEQ ID NOS: 68, 71 and 73", as recited in claim 146 is indefinite because it is unclear whether or not the phrase refers to the complements of all three SEQ ID NOS. or complements of fragments of SEQ ID NOS. 69, 71 and 73. Applicants submit that a skilled artisan understands that the phrase refers to polynucleotides that encompass the full complements of all three sequences, SEQ ID NOS: 68, 71 and 83. Thus, because a skilled artisan understands the scope of claim 146, claim 146 is not indefinite. Likewise, dependent claim 147, which incorporates the above-cited phrase is not indefinite. Accordingly, Applicants respectfully request the rejection be withdrawn.

Independent claims 148, 160, 166, 179, 181, 183, 195 and 201, and claims dependent therefrom, are also rejected under 35 USC § 112. However, no reason for this rejection is stated in the Office Action. In a teleconference with Applicants representatives on June 28, 2006, the Examiner stated that the rejection of these claims under 35 USC § 112, second paragraph, is in error. Accordingly, Applicants respectfully request the rejection to be withdrawn.

The Examiner also rejects claims 214 and 215 under 35 USC 112, second paragraph, because these claims depend from canceled claims. Claims 214 and 215 are amended to remove dependency to canceled claims 191 and 156, respectively. Accordingly, Applicants respectfully request this rejection be reconsidered and withdrawn.

### **Rejections under § 103**

The Examiner has rejected claims 166-171, 174-178, 201-206 and 209-215 under 35 USC 103(a) as allegedly obvious over Belshe. Applicants respectfully traverse.

In order to establish *prima facie* obviousness, the combined references must teach or suggest all of the elements of a claim. Independent claims 166 and 201, and claims dependent thereon, are drawn to isolated viruses comprising a PIV genome (or antigenome) and polynucleotides, respectively, wherein the genomes or polynucleotides encode a heterologous antigenic determinant that is located between a gene start and a gene end sequence.

The Belshe reference fails to disclose, teach or suggest each and every element of claims 166 and 201. Particularly, Belshe fails to teach or suggest the elements of a “gene start sequence” and a “gene end sequence.” Thus, Belshe cannot be said to suggest substitution of only an open reading frame between such gene start and gene end sequences.

Therefore, because each and every element of claims 166 and 201 are not taught or suggested by Belshe, claims 166 and 201 are not obvious over Belshe. Likewise, claims 167-

171, 174-178, 202-206 and 209-215 are allowable, at least by virtue of dependency. Accordingly, Applicants respectfully request this rejection be reconsidered and withdrawn.

**Rejection for non-statutory double-patenting**

*09/458, 813*

Claims 144-155, 157-190 and 192-215 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 53-85 of copending Application No. 09/458, 813. Applicants submit a terminal disclaimer. Accordingly, this rejection is moot.

*09/459, 062*

Claims 144-155, 157-190 and 192-215 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-30 and 46-74 of copending Application No. 09/459, 062. Applicants submit a terminal disclaimer. Accordingly, this rejection is moot.

*09/586, 479*

Claims 144-155, 157-190 and 192-215 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 85, 88-92, 94-96, 98, 99, 101, 104, 107, 108, 113-117, 119, 122-126, 128-130, 132, 133, 135, 140, 141, 146-152, 154, 157, 159, 162 and 163 of copending Application No. 09/586, 479. Applicants submit a terminal disclaimer. Accordingly, this rejection is moot.

*09/733, 692*

Claims 144-155, 157-190 and 192-215 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 180-222 of copending Application No. 09/733, 692. Applicants submit a terminal disclaimer. Accordingly, this rejection is moot.

The present application well-describes and claims patentable subject matter. The favorable action of allowance of the pending claims and passage of the application to issue is respectfully requested.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Mark J. Nuell Reg. No. 36,623 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

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